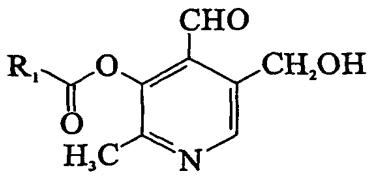
WE CLAIM:

1. A method of modulating cell death comprising administering a therapeutically effective amount of at least one of pyridoxal-5'-phosphate, pyridoxic acid, pyridoxal, pyridoxine, or pyridoxamine.

2. A method of modulating cell death comprising administering a therapeutically effective amount of at least one compound of the formula



wherein

R_1 is alkyl or alkenyl, in which alkyl or alkenyl can be interrupted by nitrogen, oxygen, or sulfur, and can be substituted at the terminal carbon by hydroxy, alkoxy, alkanoyloxy, alkanoyloxyaryl, alkoxyalkanoyl, alkoxycarbonyl, or dialkylcarbamoyloxy;

alkoxy;

dialkylamino;

alkanoyloxy;

alkanoyloxyaryl;

alkoxyalkanoyl;

alkoxycarbonyl;

dialkylcarbamoyloxy;

aryl, aryloxy, arylthio, or aralkyl,in which aryl can be substituted by alkyl, alkoxy, amino, hydroxy,halo, nitro, or alkanoyloxy; or

a pharmaceutically acceptable salt thereof.

3. The method of claim 2, wherein said R_1 is phenyl or naphthyl in which phenyl or naphthyl is unsubstituted or substituted by one or more groups of C_{1-4} alkyl, C_{1-4} alkoxy, amino, hydroxy, halo, nitro, or C_{1-4} alkanoyloxy.

4. The method of claim 2, wherein said R_1 is (2-acetoxy-2-methyl)propanyl, dimethylamino, or 1-ethanoyloxy-1-methylethyl.

5. The method of claim 2, wherein said R_1 is *tert*-butyl.

6. The method of claim 2, wherein said R_1 is methoxy or ethoxy.

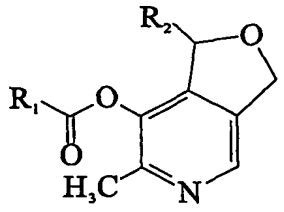
7. The method of claim 2, wherein said R_1 is toluyl, naphthyl, phenyl, acetylphenyl, or 1-ethanoyloxyphenyl.

8. The method of claim 2, wherein said R_1 is acetylsalicyl, dimethylamino, or 2,2-dimethylethyl.

9. The method of claim 2, wherein said compound is 2-methyl-3-toluoyloxy-4-formyl-5-hydroxymethylpyridine.

10. The method of claim 2, wherein said compound is 2-methyl-3-β-naphthoyloxy-4-formyl-5-hydroxymethylpyridine.

11. A method of modulating cell death comprising administering a therapeutically effective amount of at least one compound of the formula



wherein

R_1 is alkyl or alkenyl, in which alkyl or alkenyl can be interrupted by nitrogen, oxygen, or sulfur, and can be substituted at the terminal carbon by hydroxy, alkoxy,

alkanoyloxy, alkanoyloxyaryl, alkoxyalkanoyl, alkoxycarbonyl, or dialkylcarbamoyloxy;

alkoxy;

dialkylamino;

alkanoyloxy;

alkanoyloxyaryl;

alkoxyalkanoyl;

alkoxycarbonyl;

dialkylcarbamoyloxy;

aryl, aryloxy, arylthio, or aralkyl,in which aryl can be substituted by alkyl, alkoxy, amino, hydroxy,halo, nitro, or alkanoyloxy; and

R_2 is a secondary amino group; or

a pharmaceutically acceptable salt thereof.

12. The method of claim 11, wherein said R_1 is phenyl or naphthyl in which phenyl or naphthyl is unsubstituted or substituted by one or more groups of C_{1-4} alkyl, C_{1-4} alkoxy, amino, hydroxy, halo, nitro, or C_{1-4} alkanoyloxy.

13. The method of claim 11, wherein said R_1 is (2-acetoxy-2-methyl)propanyl, dimethylamino, or 1-ethanoyloxy-1-methylethyl.

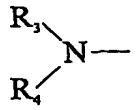
14. The method of claim 11, wherein said wherein R_1 is *tert*-butyl.

15. The method of claim 11, wherein said wherein R_1 is methoxy or ethoxy.

16. The method of claim 11, wherein said R_1 is toluyl, naphthyl, phenyl, or 1-ethanoyloxyphenyl.

17. The method of claim 11, wherein said R_1 is dimethylamino, acetylsalicyl, or 2,2-dimethylethyl.

18. The method of claim 11, wherein said R_2 is a group of the formula



wherein R_3 and R_4 are each independently alkyl or when taken together form a ring with the nitrogen atom and which ring may optionally be interrupted by a nitrogen or oxygen atom.

19. The method of claim 11, wherein said R_2 is piperidino.

20. The method of claim 11, wherein said R_2 is morpholino or piperazino.

21. The method of claim 11, wherein said compound is 1-morpholino-1,3-dihydro-7-(*p*-toluoyloxy)-6-methylfuro(3,4-*c*)pyridine.

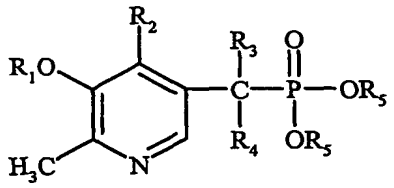
22. The method of claim 11, wherein said compound is 1-morpholino-1,3-dihydro-7-(β-naphthoyloxy)-6-methylfuro(3,4-*c*)pyridine.

23. The method of claim 11, wherein said compound is 1-morpholino-1,3-dihydro-7-pivaloyloxy-6-methylfuro(3,4-*c*)pyridine.

24. The method of claim 11, wherein said compound is 1-morpholino-1,3-dihydro-7-(dimethylcarbamoyloxy-6-methylfuro(3,4-*c*)pyridine.

25. The method of claim 11, wherein said compound is 1-morpholino-1,3-dihydro-7-acetylsalicyloxy-6-methylfuro(3,4-*c*)pyridine.

26. A method of modulating cell death comprising administering a therapeutically effective amount of at least one compound of the formula



wherein

R_1 is hydrogen or alkyl;

R_2 is –CHO, -CH_2OH, -CH_3, –CO_2R_6 in which R_6 is hydrogen, alkyl, or aryl; or

R_2 is -CH_2-O-alkyl- in which alkyl is covalently bonded to the oxygen at the 3-position instead of R_1;

R_3 is hydrogen and R_4 is hydroxy, halo, alkoxy, alkanoyloxy, alkylamino or arylamino; or

R_3 and R_4 are halo; and

R_5 is hydrogen, alkyl, aryl, aralkyl, or –CO_2R_7 in which R_7 is hydrogen, alkyl, aryl, or aralkyl;

or a pharmaceutically acceptable salt thereof.

27. The method of claim 26, wherein said R_1 is hydrogen.

28. The method of claim 26, wherein said R_2 is -CH_2OH, or -CH_2-O-alkyl- in which alkyl is covalently bonded to the oxygen at the 3-position instead of R_1.

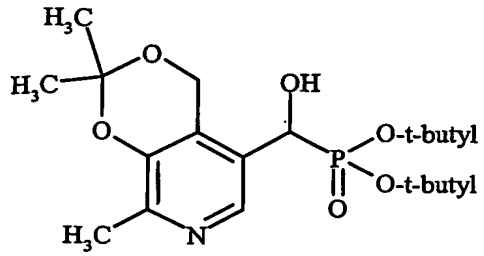
29. The method of claim 26, wherein said R_3 is hydrogen and R_4 is F, MeO-, or $CH_3C(O)O$-.

30. The method of claim 26, wherein said R_3 and R_4 are F.

31. The method of claim 26, wherein said R_5 is alkyl or aralkyl.

32. The method of claim 26, wherein said R_5 is t-butyl or benzyl.

33. A method of claim 26, wherein said compound is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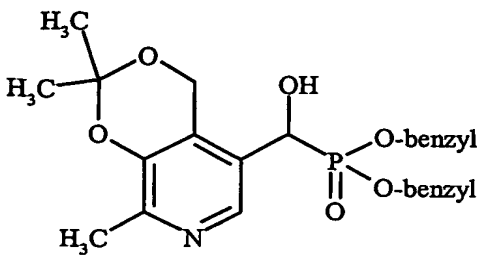
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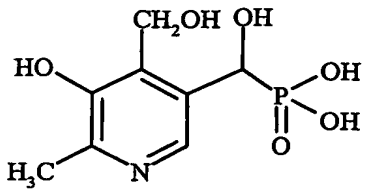
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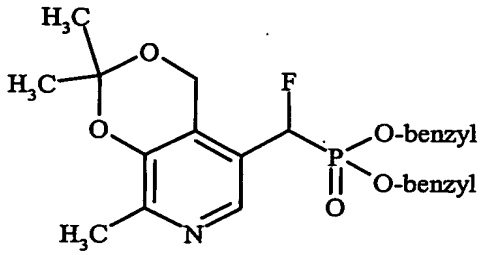
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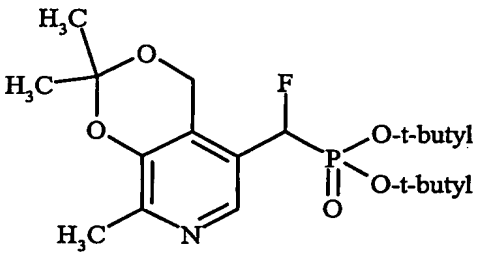
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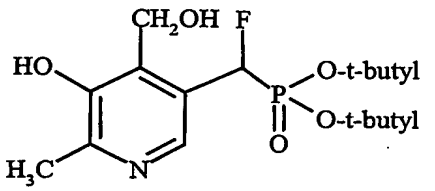
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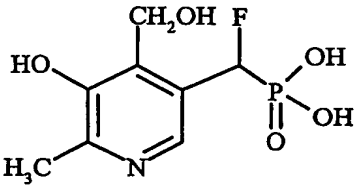
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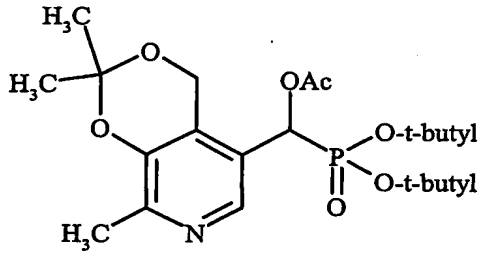
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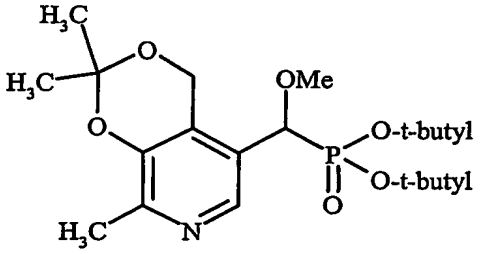
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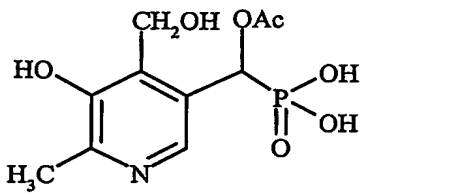
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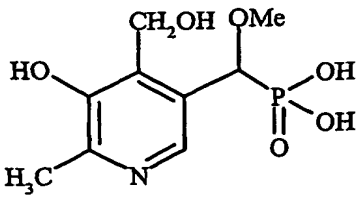

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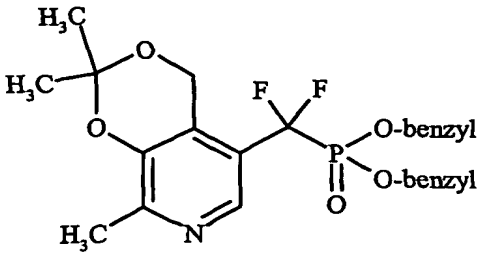

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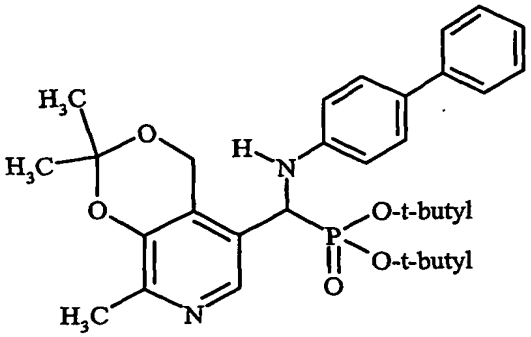

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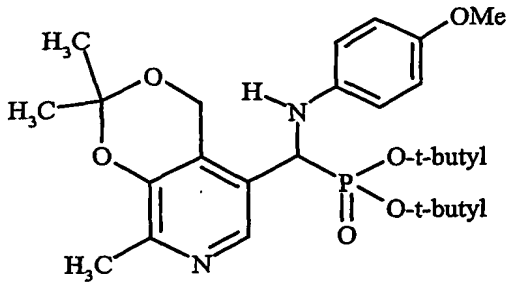
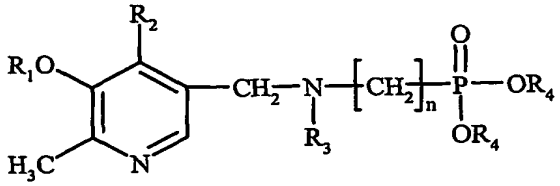


34. A method modulating cell death comprising administering a therapeutically effective amount of at least one compound of the formula



wherein

R_1 is hydrogen or alkyl;

R_2 is –CHO, -CH_2OH, -CH_3 or –CO_2R_5 in which R_5 is hydrogen, alkyl, or aryl; or

R_2 is -CH_2-O-alkyl- (in which alkyl is covalently bonded to the oxygen at the 3-position instead of R_1);

R_3 is hydrogen, alkyl, aryl, or aralkyl;

R_4 is hydrogen, alkyl, aryl, aralkyl, or $-CO_2R_6$ in which R_6 is hydrogen, alkyl, aryl, or aralkyl; and

n is 1 to 6;

or a pharmaceutically acceptable salt thereof.

35. The method of claim 34, wherein said R_1 is hydrogen.

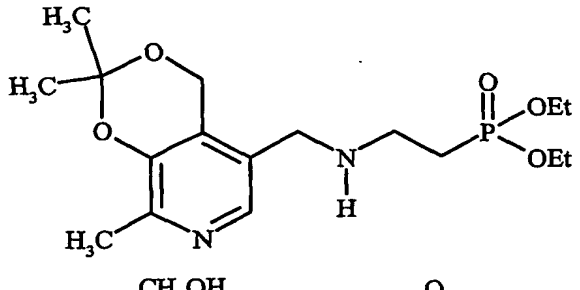
36. The method of claim 34, wherein said R_2 is $-CH_2OH$, or $-CH_2$-O-alkyl- in which alkyl is covalently bonded to the oxygen at the 3-position instead of R_1.

37. The method of claim 34, wherein said R_3 is hydrogen.

38. The method of claim 34, wherein said R_4 is alkyl or H.

39. The method of claim 34, wherein said R_4 is ethyl.

40. The method of claim 34, wherein said compound is



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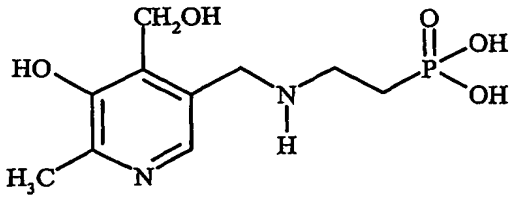

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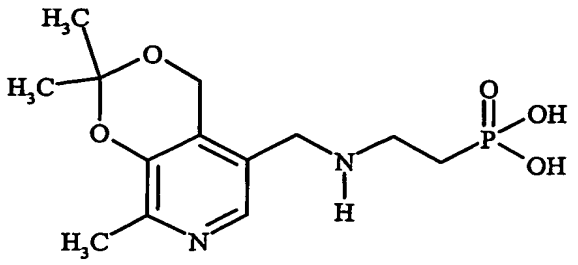
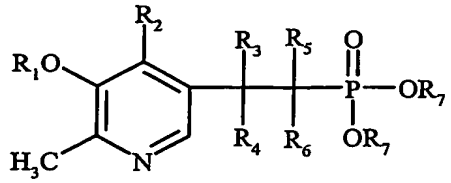


41. A method modulating cell death comprising administering a therapeutically effective amount of at least one compound of the formula



in which

R_1 is hydrogen or alkyl;

R_2 is –CHO, -CH_2OH, -CH_3 or –CO_2R_8 in which R_8 is hydrogen, alkyl, or aryl; or

R_2 is -CH_2-O-alkyl- in which alkyl is covalently bonded to the oxygen at the 3-position instead of R_1;

R_3 is hydrogen and R_4 is hydroxy, halo, alkoxy or alkanoyloxy; or

R_3 and R_4 can be taken together to form =O;

R_5 and R_6 are hydrogen; or

R_5 and R_6 are halo; and

R_7 is hydrogen, alkyl, aryl, aralkyl, or –CO_2R_8 in which R_8 is hydrogen, alkyl, aryl, or aralkyl;

or a pharmaceutically acceptable salt thereof.

42. The method of claim 41, wherein R_1 is hydrogen.

43. The method of claim 41, wherein R_2 is -CH_2O or -CH_2-O-alkyl- in which alkyl is covalently bonded to the oxygen at the 3-position instead of R_1.

44. The method of claim 41, wherein said R_4 is -OH or $CH_3C(O)O$-.

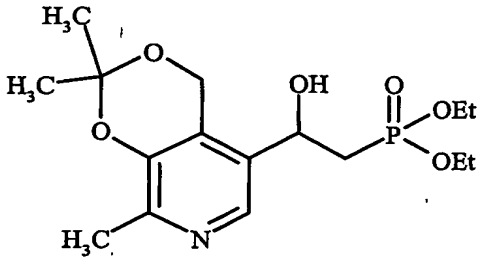
45. The method of claim 41, wherein said R_3 and R_4 taken together form =O.

46. The method of claim 41, wherein said R_5 and R_6 are F.

47. The method of claim 41, wherein said R_7 is alkyl.

48. The method of claim 41, wherein said R_7 is ethyl.

49. The method of claim 41, wherein said compound is



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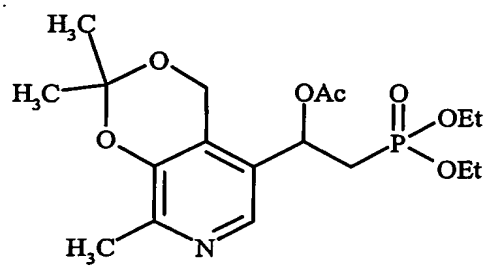

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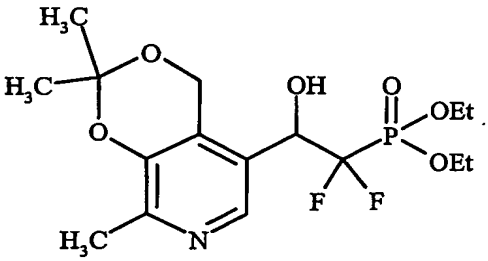

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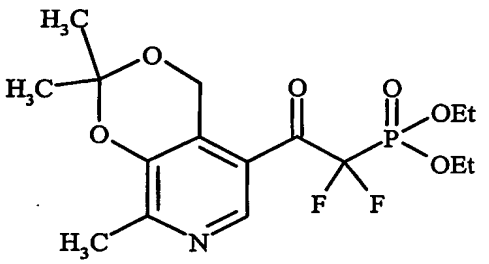

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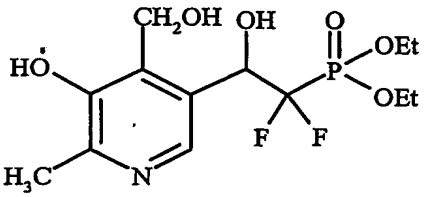

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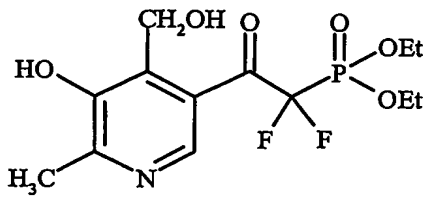

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